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STATISTICAL REPORT 1982

Social Hygiene Services

Sexually Transmitted Diseases

Alberta
SOCIAL SERVICES
AND COMMUNITY HEALTH

SEXUALLY TRANSMITTED DISEASES

STATISTICAL REPORT

1982

SOCIAL HYGIENE SERVICES

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Director

PROVINCE OF ALBERTA

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OVERVIEW

INTRODUCTION

Social Hygiene Services is the branch of Social Services and Community Health responsible for all aspects of the sexually transmitted disease control program in Alberta. The goal of the service is to provide a comprehensive program for the control of sexually transmitted diseases and therefore makes available diagnostic and treatment services through clinics located in Edmonton, Calgary and Lethbridge, epidemiologic services, consulatation to physicians, data monitoring, disease surveillance and public and professional education. Although operated through the auspices of the health unit, the Fort McMurray clinic also provides these same services to that city and its surrounding communities.

THE DISEASES

Disease surveillance is maintained for the five notifiable diseases; gonorrhea, syphilis, lymphogranuloma venereum, granuloma inguinale and chancroid.

A decrease in both the number of cases and rate for gonorrhea occurred in 1982. While the actual number of cases declined only 5.4%, the rate of 476.3 cases per 100,000 population is a drop of 11.8% from 1981. Even though this is the second consecutive year there has been a decline in rate, it is still uncertain as to whether or not this reflects a true reduction in gonorrhea incidence or is a statistical artifact produced by undetermined local variables. Part of the large decline in incidence may be due to a broadening of the population base with an upward adjustment of population figures based on the 1981 census.

In reviewing age-sex specific rates for gonorrhea, the most significant drops in rates were observed for males under 30 years. It is possible that there has been a reduction of a specific at-risk group with movement out of the province in response to a repressed economy and job market. At the same time it is noted that reported cases and rates for females in the same age groups dropped only slightly or not at all. This population, at risk not only for disease acquisition but also its attendent and long-term complications, represents an increasingly important target group for preventative and educational endeavors.

The number of cases and incidence rate for syphilis returned to the levels noted prior to 1981. The rise observed in that year was not sustained, perhaps indicating that a trend in increasing disease incidence has not been established. The decrease in cases occurred only in the infectious disease categories. The shift in the male to female ratio with proportionally more females being reported may indicate a return of the disease to the heterosexual population. Two cases of congenital syphilis reported in infants under one year of age should serve to stress the importance of continued serologic screening of pregnant women.

In 1982, there was a greater than 300% increase in the number of cases of penicillinase-producing Neisseria gonorrhoeae identified. Fourteen of the 31 cases were attributable to an epidemic which occurred in Calgary in early 1982. This outbreak was brought under control by specific measures implemented to quickly identify and appropriately treat new cases, combined with intensified contact tracing activities.

Although non-gonococcal urethritis (NGU) and herpes genitalis are non-reportable sexually transmitted diseases, they continue to present problems for our clinic populations. Improvements in laboratory testing and updated treatment modalities , combined with ongoing media coverage, may have contributed to the increased number of clients with these infections seeking clinic services.

There were no reported cases of the other three notifiable diseases.

THE PROGRAMS

Client utilization of the Social Hygiene clinics remains high. Despite a drop in confirmed disease incidence both the total number of clinic visits and laboratory tests performed were unchanged from the previous year. The evening clinics in Edmonton and Calgary, introduced in 1980, were made permanent clinic services following a positive assessment period.

Public awareness and education continued to be a divisional priority. The number of education presentations to a wide variety of audiences increased particularly in the schools and adult improvement programs. Bus posters, advertising clinic locations and information lines, were again placed for a thirteen week per-

iod with the Edmonton, Calgary and Lethbridge transit systems. A third pamphlet, entitled'Vaginitis', has joined'NGU'and'Herpes II' as printed information which is made available to the public. Due to the continued positive response to these publications, other topics for the pamphlet series are being considered.

An advertisement, originally produced for viewing at drive-in theatres, was adapted for television and was shown on a station in Edmonton for a two week period. Due to the positive feedback received it will be aired province-wide in the future in a continuation of the public awareness campaign.

In order to provide an accurate, updated resource on sexually transmitted diseases for health care professionals in the field, the physicians' information manual was rewritten and initially distributed to all provincial medical practitioners. Containing both disease descriptions and service information, this is available to all health care professionals.

Clinical and microbiological research projects through our clinics continued in 1982. Comparative therapeutic trials in uncomplicated gonococcal infections received the most attention this year. Additionally, a survey of homosexual and heterosexual matched controls for evidence of Hepatitis B infection was carried out.

CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS

TABLE 1

Table 1 indicates the number of cases of gonorrhea and syphilis (all stages) reported to Social Hygiene Services.

The reported number of cases of confirmed gonorrhea decreased by 626 from 1981; a 5.4% decline. Males exceeded females by 2368, with a male to female ratio of 1.5:1 indicating a higher proportion of females than reported in previous years.

The number of syphilis cases counted (225) in 1982 decreased by 30 from 1981 (255). The breakdown of disease stages shows that the infectious categories (primary, secondary and early latent) accounted for 37.3% of the total cases reported, a return to the proportion seen prior to 1981. Late latent cases comprised 60% of the total count. Of the 3 cases of congenital syphilis, 2 were diagnosed in children less than one year of age. Tertiary syphilis was also noted with 2 cases of neurosyphilis being diagnosed. The male to female ratio also dropped to 2.1:1 from the 2.4:1 ratio of previous years.

INCIDENCE RATES FOR GONORRHEA AND SYPHILIS

TABLES 2 and 3

The incidence rate for gonorrhea declined significantly from 1981; 540.2 to 476.3. This 11.8% decrease brings the rate closer to those observed four to six years ago.

The 20-24 year old age group continues to demonstrate the highest age specific rate for gonorrhea. As with the previous two years, 78.6% of disease occurrence was attributable to the age group 15-29 years: 58.5% occurred in the 15-24 bracket and the individual age groups 15-19, 20-24 and 25-29 contributed 21.3%, 37.2% and 20.2% respectively to the total infections reported. These proportions have remained unchanged over the past 4 years.

Although decreases in rates were recorded for all age groups, the greatest declines occurred in the less than 15 age group (22.7%) and the 20-24 (20.2%) with the smaller drops of 11.6% and 8.2% seen in the 15-19 and 25-29 age brackets.

The total male rate declined 13.9% while the female rate dropped only 8.6%. Female rates declined least for those under 20 years and in the 25-29 group.

The syphilis rate of 9.7 represents a 17.8% decrease from that recorded in 1981 (11.8). Syphilitic infection acquired through homosexual contact accounted for 13.8% of all cases and 29.8% of infectious categories. These proportions are the lowest in 3 years.

TABLE 1

ALBERTA: 1982

CASES OF REPORTED CONFIRMED GONORRHEA AND SYPHILIS BY AGE AND SEX

	<1		1 - 4		5 - 9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age N/S		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
GONORRHEA				7	-	5	11	41	861	1491	2433	1680	1566	667	1234	334	536	82	32	5	44	37	11066
SYPHILIS (TOTAL)		2	-	-	-	-	-	-	3	3	20	9	23	7	43	18	42	21	21	13			225
PRIMARY									2	2	9	3	7	2	17	3	9	1					55
SECONDARY											6	1	5	1	4		6	1					24
EARLY LATENT															1		3		1				5
LATE LATENT										1	5	5	11	4	21	14	23	19	19	13			135
LATENT UNSPECIFIED									1														1
NEURO-SYPHILIS																	1		1				2
CONGENITAL		2														1							3
TOTAL	-	2	-	7	-	5	11	41	864	1494	2453	1689	1589	674	1277	352	578	103	53	18	44	37	11291

Gonorrhea Male 6717
Female 4349

Syphilis Male 152
Female 73

ALBERTA: 1982

DISEASE INCIDENCE

EXPRESSED AS A RATE PER 100,000 POPULATION

TABLE 2 GONORRHEA

Age / Sex	< 15	15-19	20-24	25-29	30-39	40-59	60+	TOTAL
MALE	3.8	809.21	1724.3	1132.3	650.4	249.4	28.9	564.8
FEMALE	21.1	1479.17	1268.9	539.6	189.8	40.7	3.9	383.5
COMBINED	11.9	1135.1	1503.8	852.6	429.6	148.5	15.5	476.3

TABLE 3 SYPHILIS

Age / Sex	< 15	15-19	20-24	25-29	30-39	40-59	60+	TOTAL
MALE	0.0	2.8	14.2	16.6	22.5	19.5	19.0	12.8
FEMALE	0.8	3.0	6.8	5.7	10.2	10.4	10.1	6.4
COMBINED	0.4	2.9	10.6	11.5	16.6	15.1	14.2	9.7

GONORRHEA NOTIFICATIONS BY REPORTING AGENCY

TABLE 4 and GRAPH 1

Notifications of confirmed gonorrhea received from physicians comprised 43.4% of the total number of cases reported. When combined with the number of cases where only a report of a positive culture was received this percentage increases to 50.5%. The Social Hygiene clinics in combination contributed 48.5% of the reports with the remaining 1% attributable to the other reporting sources.

Although this division is similar to previous years it is noted that while the overall number of cases reported declined by 5.4% from 1981, physician (plus positive culture) notified cases decreased only 0.5% with a 10.3% decline in clinic reported cases.

For patients seen by physicians the male to female ratio is 1:1 with the clinics demonstrating a 2.6:1 ratio. This sex difference in service utilization is particularly noticeable in the under 20 age group where physicians report twice as many females as males.

TABLE 4

ALBERTA: 1982

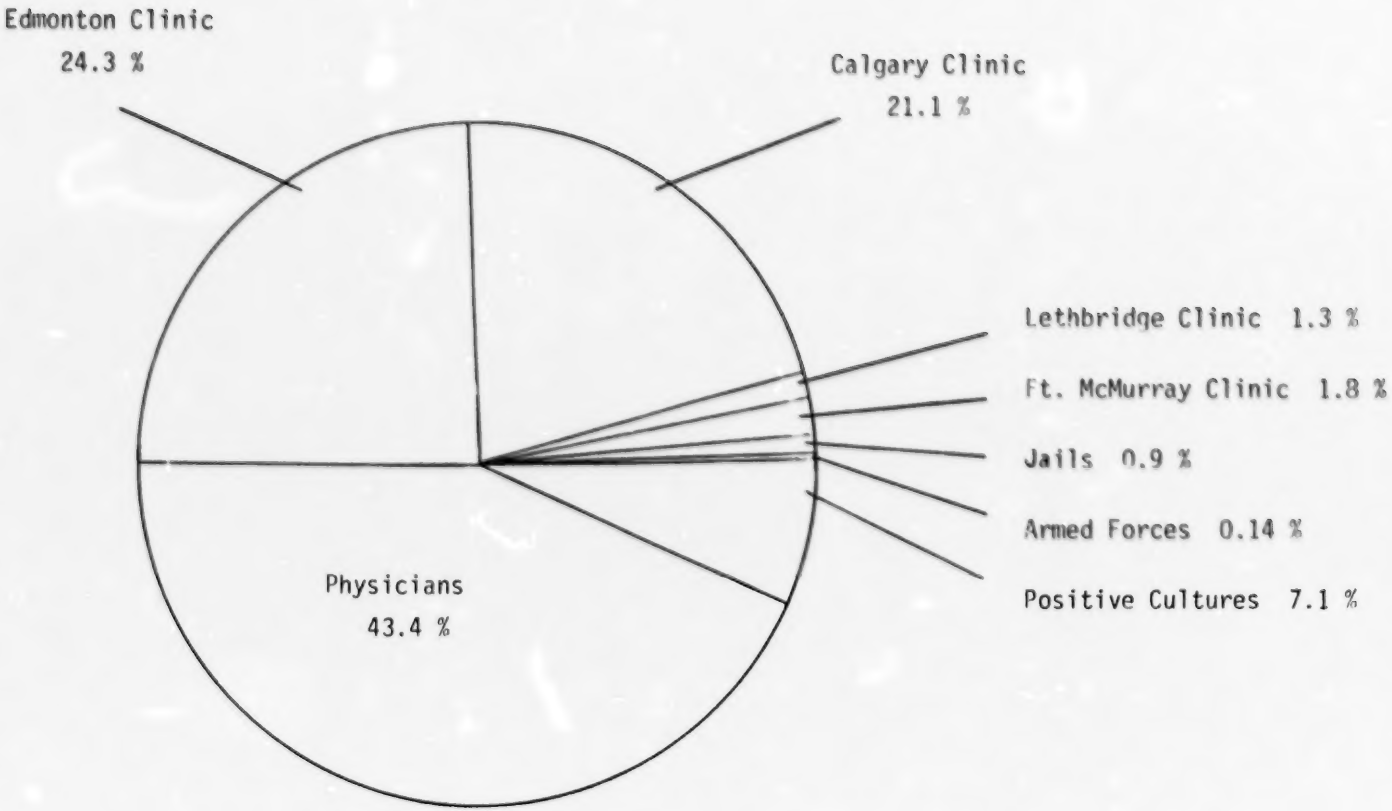
CASES OF CONFIRMED GONORRHEA

ACCORDING TO REPORTING AGENCY

BY AGE AND SEX

	< 1		1 - 4		5 - 9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age N/S		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
PHYSICIANS				5		4	7	20	358	791	918	945	511	364	403	184	185	48	10	4	22	19	4798
EDMONTON CLINIC							1	4	208	270	643	291	491	100	414	58	188	15	6		1	1	2691
CALGARY CLINIC							2	1	197	233	634	221	438	111	306	59	114	6	10				2332
LETHBRIDGE CLINIC									10	17	37	12	18	6	22	2	12		3				139
Ft.McMURRAY CLINIC							1	5	27	25	64	29	22	6	14	2	3						198
JAILS								4	21	18	19	12	6	9	6	3	5	2					105
ARMED FORCES											9	1	1		2						2		15
POSITIVE CULTURES				2		1		7	40	137	109	169	79	71	67	26	29	11	3	1	19	17	788
TOTAL				7		5	11	41	861	1491	2433	1680	1566	667	1234	334	536	82	32	5	44	37	11066

GRAPH 1



ALBERTA - 1982

PERCENTAGE OF CONFIRMED GONORRHEA REPORTED BY EACH AGENCY

DISEASE TRENDS SINCE 1945

TABLE 5 and GRAPH 2

The table and accompanying graph depict cases and rates for gonorrhea and syphilis over a thirty-seven year period.

The decline in gonorrhea incidence in both 1981 and 1982 returns the rate to the high but stabilized incidence noted during the mid - 1970's.

Following the slight rise of syphilis incidence noted in 1981 the rate has again fallen below 10 cases per 100,000 population, a state which has been observed for the past fifteen years.

TABLE 5

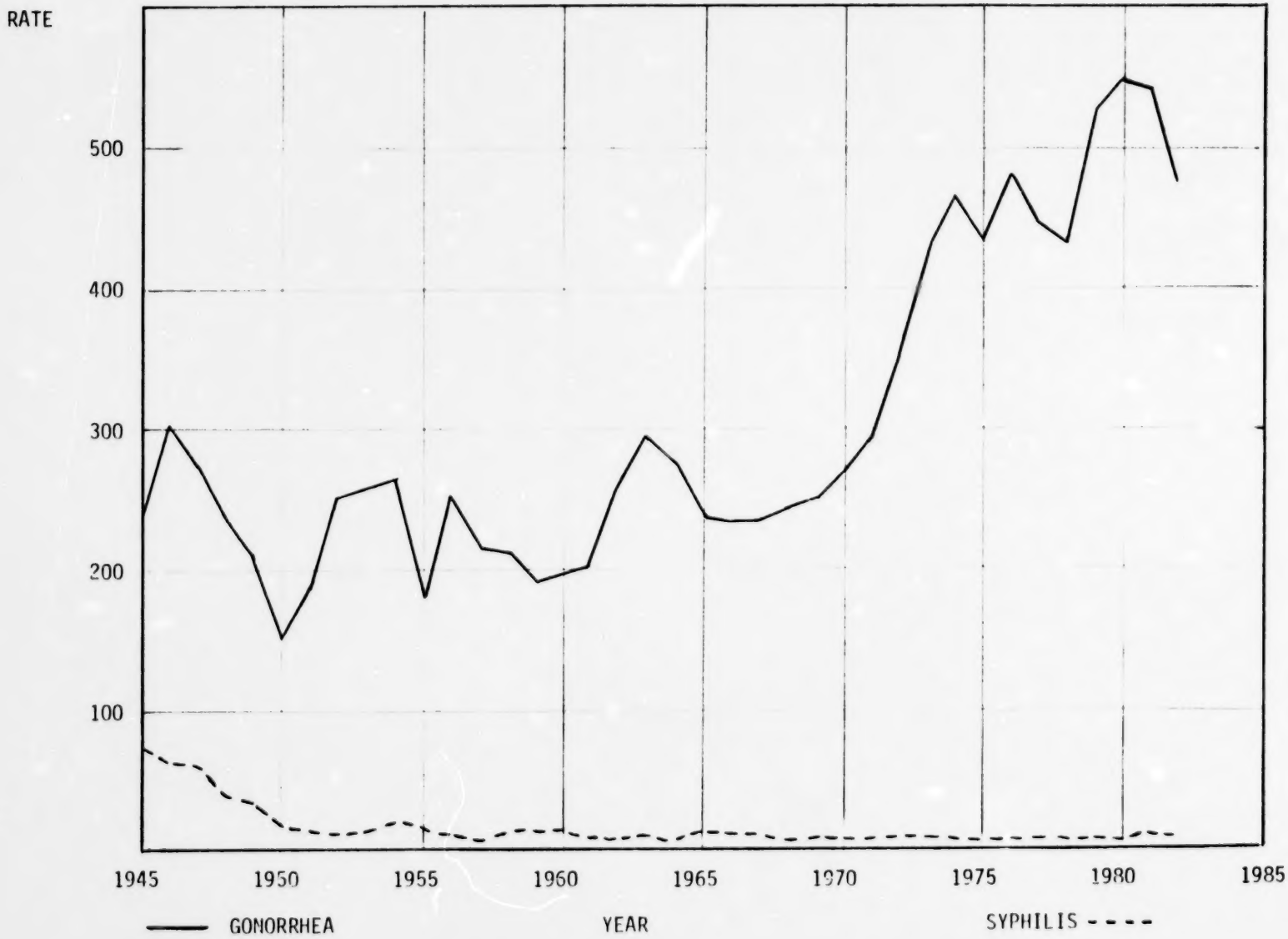
SYPHILIS AND GONORRHEA
CASES AND RATES (PER 100,000 POPULATION)
1945 - 1982

YEAR	GONORRHEA		SYPHILIS	
	CASES	RATES	CASES	RATES
1945	1,881	232.8	599	73.1
1946	2,457	301.7	503	62.6
1947	2,257	273.9	472	59.2
1948	2,032	237.9	319	37.4
1949	1,857	209.8	288	32.5
1950	1,981	152.0	165	18.1
1951	1,777	189.1	157	16.7
1952	2,450	251.8	135	13.9
1953	2,608	257.7	159	15.7
1954	2,819	266.7	212	20.1
1955	2,862	180.1	189	17.3
1956	2,842	253.0	145	12.9
1957	2,499	215.4	112	9.7
1958	2,548	211.3	167	13.8
1959	2.407	192.9	226	18.1
1960	2.560	198.3	186	14.4
1961	2,712	203.6	140	10.5
1962	3,560	260.0	134	9.8
1963	4,106	292.7	155	11.0
1964	3,953	276.7	110	7.7
1965	3,455	238.3	203	14.0
1966	3,447	235.7	208	14.2
1967	3,527	236.7	203	13.6
1968	3,729	244.4	118	7.7
1969	3,967	254.3	133	8.5
1970	4,290	268.1	134	8.0
1971	4,806	294.1	127	7.8
1972	5,842	353.2	143	8.6
1973	7,300	434.5	158	9.2
1974	8,036	466.9	136	7.8
1975	7,341	432.4	121	5.9
1976	8,657	480.3	108	5.7
1977	8,208	446.6	132	7.2
1978	8,451	430.9	165	8.4
1979	10,730	529.9	173	8.5
1980	11,474	547.8	181	8.6
1981	11,692	540.2	255	11.8
1982	11,066	476.3	225	9.7

ALBERTA

GRAPH 2 INCIDENCE RATES PER 100,000 POPULATION FOR SYPHILIS AND GONORRHEA

1945 - 1982



PPNG IN ALBERTA

TABLE 6

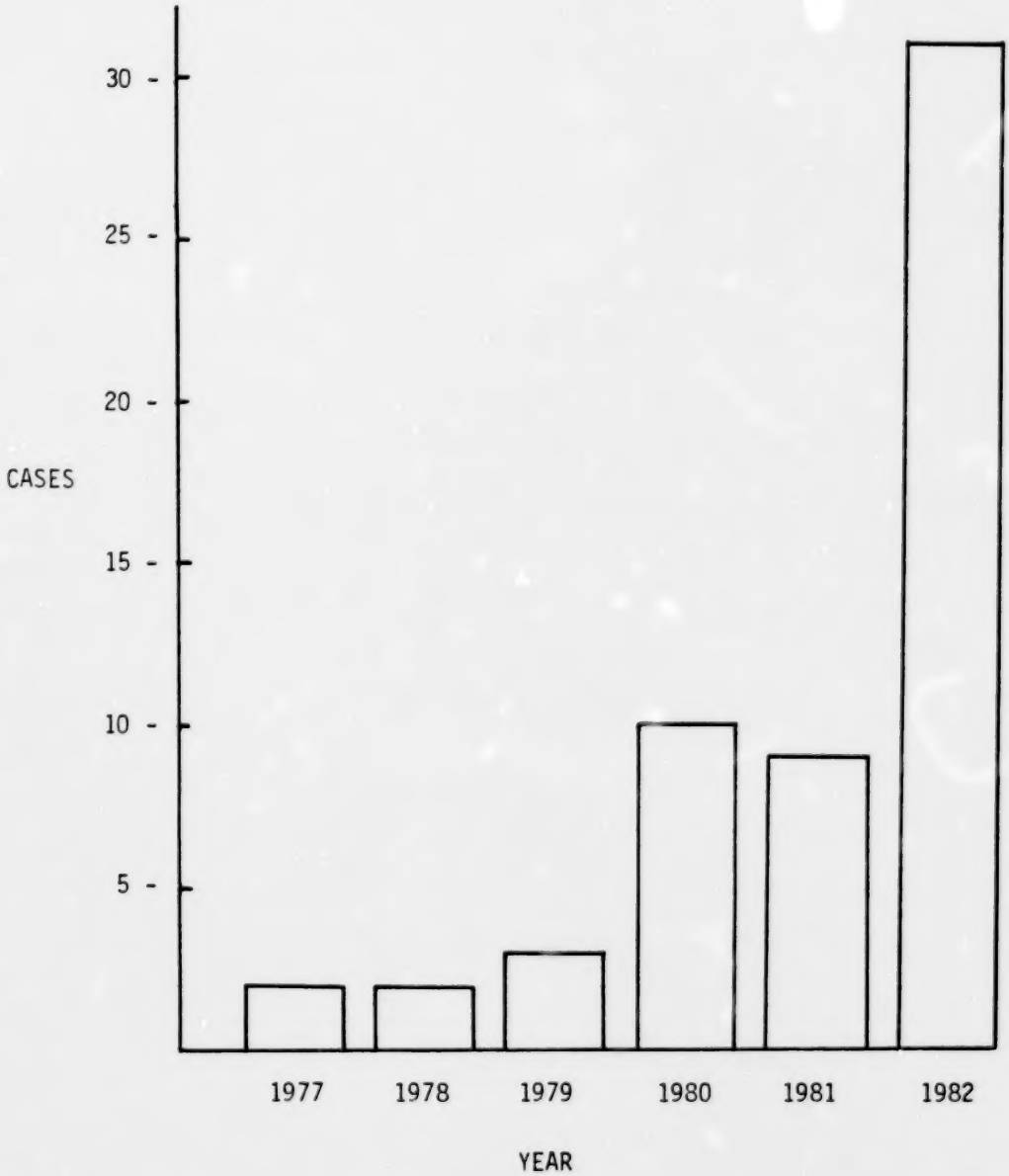
Since the first case was identified in 1977, Alberta has recorded 57 cases of penicillinase-producing Neisseria gonorrhoeae.

All but 2 of these cases could be traced to infections which were acquired abroad in PPNG endemic areas.

The number of cases in 1982 was more than triple those counted in each of 1980 and 1981. Almost one half (14) of the cases identified in 1982 occurred during a localized outbreak which was controlled within 4 months. The remaining 17 cases occurred sporadically over the rest of the year and were not related to one specific focus.

TABLE 6

CASES OF PENICILLINASE PRODUCING
NEISSERIA GONORRHOEAE (PPNG)
in ALBERTA
1977 - 1982



NOTIFICATIONS AND CONTACT INFORMATION

TABLE 7

This table outlines both the total number of contacts that were named by clients utilizing the services of the various reporting agencies and also the number of those contacts for which sufficient information was forwarded to permit an investigation to be initiated.

Sixty-two percent of the total contacts listed had sufficient information for investigation; this proportion is slightly increased from the previous 3 years.

Physicians reported an average of 0.7 contacts per notification while the clinic averages ranged from 1.2 to 1.4 contacts per notification forwarded. A large proportion of the notifications received from physicians do not list any contact information while almost all patients reported by the clinics have been interviewed regarding contacts.

Mobile clinic figures do not appear in this table as most patients located by that service would have been directed to a physician for disease confirmation and therefore usually not interviewed for contacts by the investigators.

TABLE 7

ALBERTA: 1982

NUMBER OF CONTACTS LISTED ON
NOTIFICATIONS RECEIVED FOR CONFIRMED
CASES OF GONORRHEA AND SYPHILIS

REPORTING AGENCY	TOTAL NOTIFICATIONS RECEIVED	CONTACTS/ TOTAL LISTED ON NOTIFICATIONS	CONTACTS/ SUFFICIENT INFORMATION FOR INVESTIGATION
Physicians	4860	3329	2280
Edmonton Clinic	2787	3633	2021
Calgary Clinic	2391	3188	1990
Lethbridge Clinic	141	187	142
Ft. McMurray Clinic	204	297	183
Jails	107	119	60
Armed Forces	15	15	9
TOTAL	10505	10768	6685

CONTACT INVESTIGATIONS BY CLINICS

TABLE 8

Investigations conducted by nurse investigators from each of the clinics include the followup of contacts to cases of confirmed gonorrhea and syphilis and the location of persons for whom a report of a positive culture or serology has been received but no record of treatment is available.

The total number of investigations carried out decreased by 327 from 1981, consistent with the decline in gonorrhea cases. However the numbers of completed and closed investigations remained similar to the previous year. 74.8% of the total investigations conducted resulted in the location and/or treatment of the contact.

Investigations of contacts to cases of gonorrhea are closed after 3 months, while those to syphilis remain open for one year; 14.6% of investigations were closed in this manner with failure to locate the contact.

TABLE 8

ALBERTA: 1982

NUMBER AND OUTCOME OF CONTACT INVESTIGATIONS *

CARRIED OUT BY SOCIAL HYGIENE CLINICS

CLINICS	Investigations Resulting In Location Of Contact	Investigations Closed/ Contact Unlocated	Investigations Remaining Open	Total Number of Investigations
EDMONTON	2699	760	536	3995
CALGARY	2874	536	193	3603
LETHBRIDGE	145	40	45	230
FT. MCMURRAY	378	16	68	462
MOBILE	1195	74	189	1458
TOTAL	7291	1426	1031	9748

* Includes investigations carried out as follow-up to positive cultures and serologies.

SOCIAL HYGIENE CLINICS - WORKLOAD

TABLES 9 and 10

The number of laboratory tests for gonorrhea remained relatively unchanged from the figures in 1981 for all the clinics, but increases were noted in the percentage of tests with positive results.

Although the numbers of new admissions were down in all clinics, increases in total visits were recorded for the Edmonton, Fort McMurray and Mobile clinics. Edmonton and Calgary averaged 337 and 349 clinic visits per week respectively. Fort McMurray demonstrated a 46% increase in clinic utilization from the previous year.

Serologic testing for syphilis also remained unchanged with both the numbers performed on clinic patients and for premaritals fluctuating only slightly when compared to the 1981 figures.

Isolation of Chlamydia trachomatis, a causative organism of non-gonococcal urethritis (NGU) improved 2 to 3 fold in all clinics. The number of individuals treated in the clinics for NGU also increased.

TABLE 9 1982: SOCIAL HYGIENE CLINIC LABORATORY INVESTIGATIONS

		EDMONTON CLINIC		CALGARY CLINIC		LETHBRIDGE CLINIC		FT.MCMURRAY CLINIC	
		Taken	Positive	Taken	Positive	Taken	Positive	Taken	Positive
URETHRAL SMEARS for N. GONORRHOEAE	MALE	3436	1631	2250	1307	191	68	221	122
GONORRHEA CULTURES Male	Urethral	7542	762	9203	1099	450	91	713	68
	Rectal	528	62	807	83	18	5	7	0
	Pharyngeal	7540	159	1675	33	344	4	530	7
	TOTAL	15610	983	11685	1215	812	100	1250	75
GONORRHEA CULTURES Female	Cervix/urethra	5376	818	5791	633	219	32	746	92
	Rectal	940	96	299	8	1	0	3	0
	Pharyngeal	3041	176	2059	81	147	4	349	9
	TOTAL	9357	1090	8149	722	367	36	1098	101
DARKFIELD EXAMINATIONS		107	18	13	0	6	1	18	0
CULTURES FOR CHLAMYDIA TRACHOMATIS		4821	696	1748	196	77	8	887	137
CULTURES FOR HERPES SIMPLEX VIRUS		763	129	275	121	11	0	103	7
CULTURES FOR CANDIDA ALBICANS AND TRICHOMONAS VAGINALIS		2181	576	5718	1352	219	47	746	204

TABLE 10

ALBERTA 1982

SEROLOGIC TESTS for SYPHILIS

PATIENT VISITS TO CLINICS

		EDMONTON CLINIC	CALGARY CLINIC	LETHBRIDGE CLINIC	Ft.McMURRAY CLINIC	MOBILE CLINIC
SEROLOGIC TESTS for SYPHILIS	Clinic patients	10902	11825	489	823	148
	Pre-marital	7462	10921	900	-	-
	Pre-employment	312	-	-	-	-
	TOTAL	18676	22746	1389	823	148
PATIENT VISITS	New admissions	5781	6522	449	567	-
	Total visits	17502	18167	964	1688	508

EDUCATION ACTIVITIES 1982

TABLE 11

The education office of Social Hygiene Services has available resource personnel for consultation and delivery of sexually transmitted disease information.

A major focus of the office is to provide information to those in the high risk groups. Those individuals in the 15-19 age group are reached primarily through educational presentations offered in the school setting. There was a 39 increase in the number of such presentations given at the junior and senior high school levels. The number of presentations given to those in life skills and adult improvement programs has also increased appreciably.

A second focus group consists of health care professionals and students in nursing and paramedical professions. Programs were delivered to hospitals and institutions, health units and clinics providing updated information for these community resource people.

Approaches used to increase public awareness were bus cards in 3 major centres and a variety of media interviews and appearances. A television advertisement was produced and aired in one centre for a two week period to test its feasibility for province-wide showing at a later date.

'Vaginitis', the third pamphlet in a series being produced by this department, was made available for distribution in late 1982.

TABLE 11

EDUCATION SESSIONS PRESENTED IN 1982

TYPE	NUMBER
Schools - Junior High	120
Senior High	117
College Programs	13
Nursing/Health Care Education Programs	19
Inservice: Hospital/Institutions	43
Health Units/Clinics	24
Life Skills/Adult Improvements	48
General Public	36
Presentations by Medical Staff	19
TOTAL	439

Students attending Social Hygiene Clinic for Clinical Experience:

- Nursing - - - - - - 15
- Medical/Resident - 17